REMARKS

Applicant respectfully requests the Examiner's reconsideration of the present application as amended.

Claims 1-46 are pending in the present application.

Claims 7, 18, 26, 27, 35, 39, 46 are objected to because of informalities.

Claims 24 and 25 are rejected under 35 U.S.C. §112, second paragraph.

Claims 1-6, 9-15, 19, 23, 33, 36, and 46 are rejected under 35 U.S.C. §102(b) as being unpatentable over U.S. Patent No. 5,799,010 ("Lomp").

Claims 7, 8, and 20-22 are rejected under 35 U.S.C. §103(a) as being unpatentable over Lomp.

Claims 16, 28, and 42 are rejected under 35 U.S.C. §103(a) as being unpatentable over Lomp in view of U.S. Patent No. 6,728,298 ("Okubo").

Claims 33-38 are allowed.

Claims 26 and 39 are allowable if rewritten or amended to overcome the objections set forth.

Claims 17, 18, 24, 25, 27-32, 34-37, 40-45 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten to include the limitations of the base claim and any intervening claims.

Claims 6, 7, 18, 24-27, 35, 39, and 46 have been amended.

Support for amended claims 6, 7, 18, 24-27, 35, 39, and 46 is found on pages 4-28 of the specification, Figures 1-10 of the drawings, and claims 1-46 as originally filed. No new matter has been added.

Applicant submits that in view of the amendment to the claims, the objections to claims 26-32, and 39-45 have been overcome.

The Examiner has rejected claims 1-46 under 35 U.S.C. §102(b) and §103(a) as being unpatentable over Lomp and Okubo. In particular, the Examiner has stated that

Regarding claim 1, Lomp et al. discloses (figure 4):
- Determining first correlation values (402) for a first plurality of sample sequences during a first clock cycle (column 29, lines 22-47);
- Determining a second correlation values (403) for a first plurality of sample sequences during a second clock cycle (column 29, lines 22-47);
- Block (410) for determining correlation outputs for the first plurality of sample sequences from the first and second correlation values.

. . .

Regarding claim 6, Lomp et al. discloses (figure 4):
- Processing a first group of coefficients (402, column 29, lines 27-33 and column 27, lines 17-19) in the code sequence with a first group of sample values in a received sample to determine a first intermediate correlation value during a first clock cycle (column 29, lines 22-47);
- Processing a second group of coefficients (403, column 29, lines 37-42 and column 27, lines 17-19) in the code sequence with a second group of sample values in a received sample to determine a second intermediate correlation value during a second clock cycle (column 29, lines 22-47);
- Determining a correlation output from the first and second intermediate correlation value (410).

(9/23/2005 Office Action, pp. 3-5)

As stated above, claims 6, 7, 18, 24-27, 35, 39, and 46 have been amended.

It is submitted that Lomp and Okubo do not render claims 1-46, as amended, unpatentable under 35 U.S.C. §102(b) or §103(a).

Lomp includes a disclosure of a multiple access, spread-spectrum communication system that processes a plurality of information signals received by a Radio Carrier Station (RCS) over telecommunication lines for simultaneous transmission over a radio frequency (RF) channel as a code-division-multiplexed (CDM) signal to a group of Subscriber Units (SU). The RCS receives a call request signal that corresponds to a telecommunication line information signal, and a user identification signal that identifies a user to receive the call. The RCS includes a plurality of Code Division Multiplexed Access (CDMA) modems, one of which provides a global pilot code signal.

The modems provide message code signals synchronized to the global pilot signal. Each modem combines an information signal with a message code signal to provide a CDM processed signal. The RCS includes a system channel controller to receive a remote call. A RF transmitter is connected to al of the modems to combine the CDM processed signals with the global pilot code signal to generate a CDM signal. The RF transmitter also modulates a carrier signal with the CDM signal and transmits the modulated carrier signal through an RF communication channel to the SUs. Each SU includes a CDMA modem which is also synchronized to the global pilot signal. The CDMA modem despreads the CDM signal and provides a despread information signal to the user. The system includes a closed loop power control system for maintaining a minimum system transmit power level for the RCS and SUs, and system capacity management for maintaining a maximum of active SUs for improved system performance (See Lomp Abstract).

Okubo includes a disclosure of a spread code generating section that generates a spread code list from the input parallel information, spread modulating sections that generate a plurality of parallel spectrum spread signals corresponding to the parallel information list by multiplying each of the parallel information list and the spread code list respectively, phase shifting sections that shift the phase of the parallel spectrum spread signals, and delay sections that delay the parallel spectrum spread signals. A multiplexing section generates a multiplexed spectrum spread signal by adding the delayed parallel spectrum spread signals. The multiplexed spectrum spread signal are converted into a radio frequency signal, amplified and then transmitted (See Okubo Abstract).

It is submitted that Lomp and Okubo do not teach or suggest determining first intermediate correlation values for a first plurality of sample sequences during a first

clock cycle and _determining second intermediate correlation values for the first plurality_

of sample sequences during a second clock cycle.

On the contrary, Lomp discloses correlation banks that operate on _different_

sample sequences, early samples and late samples. The correlation banks generate

values for each of the different early samples and late samples. Lomp describes _a first_

correlation bank adaptive matched filter 402 that multiples each early sample by the

spreading code phases $c(n+1)$, $c(n+2)$, ..., $c(n+L)$, and _a second correlation bank_

adaptive matched filter 403 that operates on late samples using code phases $c(n-1)$, $c(n-$

$2)$, ..., $c(n-L)$ (See Lomp, column 29, lines 27-42, and Figure 4). Lomp does not disclose

determining first intermediate correlation values for _a first plurality of sample sequences_

and determining second intermediate correlation values for _the first plurality of sample_

sequences.

Okubo only discloses a spread spectrum communication system. Okubo does

not teach or suggest determining first intermediate correlation values for a first plurality

of sample sequences during a first clock cycle and determining second intermediate

correlation values for the first plurality of sample sequences during a second clock cycle.

In contrast, claim 1 states

> A method for managing a code sequence, comprising:
> _determining first intermediate correlation values for a first_
> _plurality of sample sequences_ during a first clock cycle;
> _determining second intermediate correlation values for the_
> _first plurality of sample sequences_ during a second clock cycle;
> and
> determining correlation outputs for the first plurality of
> sample sequences from the first and second intermediate
> correlation values.

(Claim 1) (Emphasis added).

Given that claims 2-5 depend from claim 1, it is likewise submitted that claims

2-5 are also patentable under 35 U.S.C. §102(b) and §103(a) over Lomp and Okubo.

It is further submitted that Lomp and Okubo do not teach or suggest processing a first group of coefficients with a first group of contiguous sample values in a received sample to determine a first intermediate correlation value, and processing a second group of coefficients in the code sequence with a second group of contiguous sample values in the received sample to determine a second intermediate correlation value.

On the contrary, Lomp discloses grouping samples non-contiguously. Lomp describes a tracking circuit having an A/D 401 which samples an input signal x(t) to form the half-chip offset samples. The half chip offset samples are alternatively grouped into even samples called an early set of samples (x(nT+τ) and odd samples called a late set of samples x(nT+(T/2)+τ). A first correlation bank adaptive matched filter 402 that multiples each early sample by the spreading code phases c(n+1), c(n+2), ..., c(n+L), and a second correlation bank adaptive matched filter 403 that operates on late samples using code phases c(n-1), c(n-2), ..., c(n-L) (See Lomp, column 29, lines 22-42, and Figure 4). Lomp does not disclose processing a first group of coefficients with a first group of contiguous sample values in a received sample to determine a first intermediate correlation value, and processing a second group of coefficients in the code sequence with a second group of contiguous sample values in the received sample to determine a second intermediate correlation value.

Okubo only discloses a spread spectrum communication system. Okubo does not teach or suggest processing a first group of coefficients with a first group of contiguous sample values in a received sample to determine a first intermediate correlation value, and processing a second group of coefficients in the code sequence with a second group of contiguous sample values in the received sample to determine a second intermediate correlation value.

In contrast, claim 6, as amended, states

A method for managing a code sequence, comprising:

processing a first group of coefficients in the code
sequence with a first group of contiguous sample values
in a received sample to determine a first intermediate
correlation value during a first clock cycle;
processing a second group of coefficients in the code
sequence with a second group of contiguous sample
values in the received sample to determine a second
intermediate correlation value during a second clock
cycle; and
determining a correlation output from the first and
second intermediate correlation values.

(Claim 6 as amended) (Emphasis added).

Claims 14 and 46, as amended, include similar limitations regarding contiguous

sample values. Given that claims 7-9 and 11-13 depend directly or indirectly from claim

6, and claims 15-25 depend directly or indirectly form claim 14, it is likewise submitted

that claims 7-9, 11-13, and 15-25 are also patentable under 35 U.S.C. §102(b) and

§103(a) over Lomp and Okubo.

In view of the amendments and arguments set forth herein, it is respectfully

submitted that the applicable rejections and have been overcome. Accordingly, it is

respectfully submitted that claims 1-9, and 11-46 should be found to be in condition for

allowance.

If any additional fee is required, please charge Deposit Account No. 50-1624.

Respectfully submitted,

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Lawrence M. Cho
Attorney for Applicant
Registration No. 39,942

P.O. Box 2144
Champaign, IL 61825
(217) 377-2500